



S. Little
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT #41
Briff

In re application of: Goran SUNDHOLM

Serial No.: 09/297,256

Group No.: 3752

Filed: April 28, 1999

Examiner: C. Kim

For: FIRE FIGHTING APPARATUS

Attorney Docket No.: U 012229-2

Assistant Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

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JUN 03 2003

TECHNOLOGY CENTER R3700

APPEAL BRIEF

Real Party in Interest

The real party in interest is Marioff Corporation Oy of P.O. Box 25, FIN-01511
Vanda, Finland.

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8a)

I hereby certify that this correspondence is, on the date shown below, being:

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Signature

Date: May 22, 2003

William R. Evans
(type or print name of person certifying)

05/28/2003 AWONDAF1 00000019 09297256

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Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

Claims 1-14 are pending and appealed.

Claim 1 is rejected under 35 USC 102 as being anticipated by the cited Naumann, et al. US Patent 3,613,794.

Claims 1-7 and 9-14 are rejected under 35 USC 103(a) as being unpatentable over Diqualtro US Patent 3,012,613 in view of Lockwood US Patent 3,827,502.

Claim 8 is rejected under 35 USC 103(a) as being unpatentable over the cited Diqualtro US Patent 3,012,613 in view of Lockwood US Patent 3,827,502 and further in view of Willms US Patent 4,082,148.

Status of Amendments

An Amendment filed March 13, 2003, was entered for purposes of appeal and overcame rejections under 35 USC 112, second paragraph, according to the Advisory Action of April 2, 2003.

Summary of the Invention

As in the independent claims, a fire fighting apparatus has a plurality of spray heads (5a to 5e, 6a to 6e; 5a', 5b' to 5e'), a tube system (2, 3a to 3e, 4a to 4e; 2', 3a', 3e') for leading extinguishing medium to the spray heads, a first drive gas source (9; 9') for driving the extinguishing medium at a high pressure via the tube system to the spray heads and release

means (8a, 8b) for activating at least one of the spray heads. The first drive gas source (9; 9') is coupled to an extinguishing medium source consisting essentially of a long tube (2;2') constituting part of the tube system. Therefore, the extinguishing medium source is, essentially, the tube system for leading the extinguishing medium to the spray heads.

In known fire fighting apparatus of this type, there is a separate extinguishing medium source in addition to the tube system. Only the claimed invention recognizes that, when the tube system is long enough, as in a tunnel as specifically in claims 9 and 10, or at least two hundred meters, as specifically in claims 13 and 14, the known separate extinguishing medium source can be eliminated as described above.

Issues

A first issue is whether claim 1 is anticipated under 35 USC 102(b) by the Naumann, et al. patent.

A second issue is whether independent claims 1, 13 and 14 are obvious under 35 USC 103 from the Diquattro and Lockwood patents.

The separate rejection of claim 8 is not made an issue.

Grouping of Claims

Claims 1-12 are grouped together for the ground of rejection of the second issue, which is the only one that applies to two or more claims.

Claims 1, 13 and 14 are considered separately with respect thereto.

Therefore, there are four issues and claim groups: claim 1, first issue; claims 1-12, second issue; claim 13, second issue; and claim 14, second issue.

Argument

First issue: whether claim 1 is anticipated under 35 USC 102(b) by the Naumann, et al. patent.

The rejection of claim 1 under 35 USC 102(b) finds anticipation in the cited Naumann, et al. patent from spray heads 25, tube system 13, drive gas sources 15, 17 and release means 27. However, as cited at MPEP 2131 for anticipation:

The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 requires, *inter alia*, a "... drive gas source ... coupled to an extinguishing medium source consisting essentially of a long tube ... constituting part of the tube system" "... for leading extinguishing medium to the spray heads" The rejection fails, therefore, because it does not show in as complete detail as contained in the claim the long tube extinguishing medium source.

The Naumann, et al. patent discloses a "... gas compression tube 15 ..." (column 1, line 64) connected to "... a container 13 for holding the liquid to be sprayed ..." (column 1, lines 63-64)." Gas compression tube 15 looks like a tube and is described as a tube. However, container 13 for the extinguishing medium neither looks like a tube nor is described as a tube, as claimed.

In the Naumann, et al. patent:

Container 13, preferentially, though not obligatorily, is of a generally elongated cylindrical configuration The container is provided with a bore 21 of reduced diameter The container is additionally provided with a plurality of discharge nozzles 25 that communicate with bore 11 [*sic.*, 21] Column 1, lines 67-73.

Therefore, the container 13 the drive gas compression tube 15 of the Naumann, et al. patent is coupled to can also be considered bore 21 for leading extinguishing medium to spray heads or discharge nozzles 25. Whether considered as the container 13 or bore 21, the extinguishing medium source of the Naumann, et al. patent for leading extinguishing medium to the spray heads/nozzles, as claimed, does not consist essentially of a long tube in as complete detail as in claim 1.

A patent applicant may be his or her own lexicographer. MPEP 2111.01. The Naumann, et al. patent applicant defined a tube as a tube and a container or bore as a container or bore and not the tube claimed. A different meaning should not be given now.

During examination, the claims must be interpreted as broadly as their terms reasonably allow. This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. MPEP 2111.01.

The container 13 and bore 21 are neither described nor shown in any of the Figs. of the patent as a tube according to the plain meaning of the term.

The container 13 and bore 21 shown in the Naumann, et al. patent are even less a long tube as in the complete detail of claim 1 according to the clear if only primary definition of a long tube in the applicant's specification. "A long tube means in this connection primarily a tube having a length of the size of about 1 km and more." Specification page 2, lines 10-11.

Such a long tube may be for use in a tunnel. See claim 9, for example. This second clear if exemplary definition is not met by the container 13 or bore 21 of the Naumann, et al. patent, either.

The container 13 and bore 21 shown in any of the Figs. of the Naumann, et al. patent are not a long tube as in the complete detail contained in claim 1 and necessary for the rejection. While "long" may be relative, when considered relative to the patent, the container 13 and thus its bore 21 are shorter than the tube 15, whether that tube 15 is long, as claimed, or not. If tube 15 in the patent is a long tube, as claimed, the shorter container 13 and its still shorter bore 21 are not, and if even the tube 15 in the patent is not a long tube, the shorter container and its still shorter bore 21 are even less the long tube of the complete detail of claim 1 required for its rejection.

Second issue: whether claims 1-12 are obvious under 35 USC 103 from the Diquattro and Lockwood patents.

The rejection of claims 1-12 under 35 USC 103(a) finds obviousness in the cited Diquattro and Lockwood patents from the "... tube system 16a-c, 12, 14, 18 ... in figure 1, by way of example (column 2, lines 40-41), receptacles 16a-c being cylinder-like and varying the [sic, in] size and capacity to meet various combination of requirements (column 3, lines 48-51)" of the Diquattro patent, because "it would have been obvious ... to have shaped the

receptacles of Diquattro into a tube shape of appropriate length as taught by Lockwood"

The Diquattro patent discloses a fire fighting apparatus like claim 1, except that its "... receptacles 16a, 16b and 16c for a liquid coolant each hav[e] outlet means 17 for conducting coolant to one or more supply points ..." (Column 2, lines 17-19) which could be the spray heads claimed. (However, it may be noted that, contrary to the rejection, manifold 12, conduit 14 and inlet 18 all relate to the drive gas source 10 and not the tube system claimed. In claim 1, the drive gas source is "... coupled to an extinguishing medium source consisting essentially of a long tube ..." that is part of the tube system for leading extinguishing medium to spray heads.) Therefore, in the Diquattro patent, the extinguishing medium source consists essentially of receptacles, the receptacles having tube-like outlet means but not consisting essentially thereof, as claimed.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP 2141.02 (citation omitted, emphasis original).

The Diquattro patent teaches away from the invention of claim 1 in which the extinguishing medium source consists essentially of a long tube of the tube system leading to spray heads.

In order to support the rejection, therefore, it must be shown that the Lockwood patent has a contrary teaching toward an extinguishing medium source consisting essentially of a long tube of a tube system leading to spray heads. It does not.

The Lockwood patent discloses in Figs. 1, 3 and 4 "... an extinguisher 3 [that] consists of a clear flexible tube 4 of plastics material which is filled with" pressurized extinguishing medium (column 3, lines 9-10). The extinguisher consists of a tube. It does not have spray heads or a tube system for leading extinguishing medium to the spray heads,

as claimed. Therefore, if the Lockwood reference is considered as a whole in combination with the Diquattro patent to provide an extinguishing medium source that consists essentially of a long tube, then its teaching away from the claimed invention would eliminate the tube system leading to spray heads of the Diquattro patent and claim. The two patents together cannot teach the whole claimed invention since each patent teaches away from a different part thereof.

It is not "features" but the subject matter of the invention "as a whole" that must be considered, 35 U.S.C §103. That features, even distinguishing features, are "disclosed" in the prior art is alone insufficient.
The test is whether the claimed invention as a whole, in light of all the teaching of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell et al. v. Sears Roebuck & Co., 220 USPQ 193, 199 (Fed. Cir. 1983).

The teaching of the Lockwood patent in its entirety may be appreciated from its Figs. 2, 3 and 4. The extinguisher of Fig. 1 is sufficient for use on a television set as shown in Figs. 3 and 4 of the patent, but "... Fig. 2 is intended for apparatus such that a fire outbreak might require more extinguishant [from] ... a tube 4 ... connected to a reservoir bottle 9, containing a backing supply of the extinguishant liquid" (column 3, lines 29-35). The teaching of the Lockwood patent is, therefore, that when more than a TV-extinguisher is required, so is a source of extinguishing liquid that is more than a tube, i.e. that includes a backing supply of a reservoir bottle.

If the claimed invention were for a TV-sized extinguisher, the teaching of the Lockwood patent in its entirety might apply, but this is not the case. The teaching of the claimed invention is for tunnels, as in claim 9, for example. Therefore, once again, the teaching of the Lockwood patent is contrary to the claimed invention as a whole.

Claim 1 requires a "long tube." While long may be relative, it is apparent that no tube was thought long enough in the Lockwood patent. On the contrary, for more extinguishant, the Lockwood patent teaches a reservoir bottle 9 like the receptacles 16a, 16b, 16c of the Diquattro patent of extinguishant. Therefore, the two patents together teach away from the claimed invention and not toward it as required for a rejection.

Whether the applicant's lexicography defines "long tube" precisely on page 2 of the specification with only a primary meaning of a length of 1 km or more, the plain meaning of the words "long tube" are still contrary to something suitable only for a TV before it requires a reservoir of extinguishant in common with the Diquattro patent but contrary to the claim 1. FIG. 5 of the Lockwood patent shows that this contrary teaching sets in already for use on "... a small boat 21" (column 3, line 62). Therefore, only the invention of claim 1 recognizes that, when the tube is long, as claimed, the reservoir and receptacle of extinguishant of the Lockwood and Diquattro patents in combination may be eliminated, not required.

Second issue: whether claim 13 is obvious under 35 USC 103 from the Diquattro and Lockwood patents.

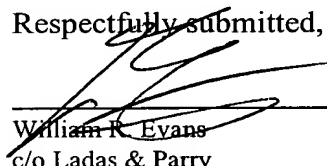
If the Lockwood and Diquattro patents teach the claimed invention including an extinguishing medium source which consists essentially of a long tube, which they do not for the reasons described with respect to claim 1 above, they do not teach this when the long tube has a length of at least two hundred meters, as in claim 13. The Lockwood patent teaches in Fig. 5 that a tube extinguishing medium source requires a supplemental extinguishant reservoir bottle 9 already on a "small boat" where the tube could hardly be two hundred meters, as claimed.

If a tube of two hundred meters ran about an engine compartment 20 as shown in Fig. 5 of the Lockwood patent, the engine compartment would be about 70 meters long. It is not clear that even Larry Ellison would consider small a boat with an engine compartment 70 meters long. The plain meaning of the word small to those of ordinary skill should be less.

Second issue: whether claim 14 is obvious under 35 USC 103 from the Diquattro and Lockwood patents.

If the Lockwood and Diquattro patents teach the claimed invention including an extinguishing medium source which consists essentially of a long tube, which they do not for the reasons described with respect to claims 1 and 13 above, they do not teach this when the long tube has a length of at least about 1 km, as in claim 14. There is no way the disclosure of the Lockwood patent that its reservoir bottle or the receptacles of the Diquattro patent are needed already on a "small boat" can suggest that they are not needed, as claimed, at a length of about 1 km.

Respectfully submitted,


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Appendix

1. (previously amended) A fire fighting apparatus comprising a plurality of spray heads (5a to 5e, 6a to 6e; 5a', 5b' to 5e'), a tube system (2, 3a to 3e, 4a to 4e; 2', 3a', 3e') for leading extinguishing medium to the spray heads, a first drive gas source (9; 9') for driving the extinguishing medium at a high pressure via the tube system to the spray heads and release means (8a, 8b) for activating at least one of the spray heads, wherein:

the first drive gas source (9; 9') is coupled to an extinguishing medium source consisting essentially of a long tube (2;2') constituting part of the tube system.

2. (previously amended) A fire fighting apparatus according to claim 1, characterized in that a plurality of second drive gas sources (10 to 12; 10' to 12') are arranged to the tube (2; 2') at predetermined distances (1) from the first gas drive sources (9; 9') along the tube (2; 2').

3. (original) A fire fighting apparatus according to claim 2, characterized in that a stop/opening valve (13 to 15; 13' to 15') for closing and opening the flow of extinguishing medium in the tube (2; 2) is arranged between individual drive gas sources (9 to 12; 9' to 12').

4. (previously amended) A fire fighting apparatus according to claim 2, characterized in that the tube (2; 2') is divided into a number of main sections (1), each containing at least one of the second drive gas sources.

5. (original) A fire fighting apparatus according to claim 4, characterized in that the drive gas sources are constituted by nitrogen bottles (9; 9') having a pressure of 30 to 400 bar.

6. (previously amended) A fire fighting apparatus according to claim 4, characterized in that the main sections (1) comprise a number of zones (A), each of them containing a group of the spray heads (5b to 5e, 6b, 6e'; 5b' to 5e').

7. (currently amended) A fire fighting apparatus according to claim 6, characterized in that the release means (8a, 8b) are arranged along the tube (2;2') within the zones (A) for releasing a group of the spray heads (5b to 5e, 6b to 6e'; 5b' to 5e') belonging respectively to the zones.

8. (original) A fire fighting apparatus according to claim 7, characterized in that each group of spray heads (5b to 5e, 6b to 6e'; 5b' to 6e') contains a valve (7b to 7e; 7') to control at least one spray head belonging to the group (5b to 5e, 6b to 6e'; 5b' to 5e').

9. (previously amended) A fire fighting apparatus according to claim 1, characterized in that the tube system (2, 3a to 3e, 4a to 4e; 2', 3a', 3e') follows a longitudinal direction of a tunnel (1; 1').

10. (original) A fire fighting apparatus according to claim 9, characterized in that the spray heads comprise first spray heads (5b to 5e) arranged in an upper part of the tunnel (1) and second spray heads (6b to 6e) arranged in a lower part of the tunnel, whereby the first spray heads are arranged to spray mainly in the opposite direction with respect to the second spray heads.

11. (currently amended) A fire fighting apparatus according to claim 1, characterized in that the spray heads (5a to 5e, 6b to 6e; 5a' to 5e') spray mist.

12. (original) a fire fighting apparatus according to claim 1, characterized in that the extinguishing medium is water-based liquid.

13. (previously amended) A fire fighting apparatus comprising a plurality of spray heads (5a to 5e, 6a to 6e; 5a', 5b' to 5e'), a tube system (2, 3a to 3e, 4a to 4e; 2', 3a', 3e') for leading extinguishing medium to the spray heads, at least one drive gas source (9 to 12; 9' to 12') for driving the extinguishing medium at a high pressure via the tube system to the spray heads and release means (8a, 8b) for activating at least one of the spray heads, wherein the at least one drive gas source (9 to 12; 9' to 12') is coupled to an extinguishing medium source which consists essentially of a long tube (2; 2') which has a length of at least two hundred meters and constitutes part of the tube system.

14. (previously amended) A fire fighting apparatus comprising a plurality of spray heads (5a to 5e, 6a to 6e; 5a', 5b' to 5e'), a tube system (2, 3a to 3e, 4a to 4e; 2', 3a', 3e') for leading extinguishing medium to the spray heads, at least one drive gas source (9 to 12; 9' to 12') for driving the extinguishing medium at a high pressure via the tube system to the spray heads and release means (8a, 8b) for activating at least one of the spray heads, wherein the at least one drive gas source (9 to 12; 9' to 12') is coupled to an extinguishing medium source which consists essentially of a long tube (2; 2') which has a length of at least about 1 km and constitutes part of the tube system.

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Practitioner's Docket No. U 012229-2

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Goran SUNDHOLM
Serial No.: 09/297,256
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TECHNOLOGY CENTER R3700

TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION—37 C.F.R. 1.192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on April 14, 2003.

NOTE: "Appellant must, within two months from the date of the notice of appeal under § 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate...." 37 CFR 1.192(a) (emphasis added)

2. STATUS OF APPLICANT

This application is on behalf of

- ☐ other than a small entity.
- ☒ a small entity.

A statement:

- ☐ is attached.
- ☒ was already filed.

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))

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- ☐ transmitted by facsimile to the Patent and Trademark Office.

Signature

Date: May 22, 2003

William R. Evans

(type or print name of person certifying)

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. 1.17(c), the fee for filing the Appeal Brief is:

- ☒ small entity \$160.00
- ☐ other than a small entity \$320.00

Appeal Brief fee due \$ 160.00

4. EXTENSION OF TERM

NOTE: 37 C.F.R. § 1.704(b) "... an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: The time periods set forth in 37 C.F.R. 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 C.F.R. 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in § 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. 133, the period for filing an appeal brief may be extended up to seven months. 62 F.R. 53131, at 53156, October 10, 1997.

The proceedings herein are for a patent application and the provisions of 37 C.F.R.1.136 apply.

(complete (a) or (b), as applicable)

- (a) ☐ Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(5)) for the total number of months checked below:

<input type="checkbox"/> Extension (months)	Fee for other than <u>small entity</u>	Fee for <u>small entity</u>
one month	\$ 110.00	\$ 55.00
two months	\$ 410.00	\$205.00
three months	\$ 930.00	\$465.00
four months	\$1,450.00	\$725.00
five months	\$1,970.00	\$985.00

Fee \$ _____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

or

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 160.00

Extension fee (if any) \$ _____

TOTAL FEE DUE \$ 160.00

6. FEE PAYMENT

- ☒ Attached is a check in the sum of \$ 160.00.
☐ Charge Account No. 12-0425 the sum of \$ _____.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in resuming the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G 31-33.

- ☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 12-0425

AND/OR

- ☒ If any additional fee for claims is required, charge Account No. 12-0425.

Date: May 22, 2003


SIGNATURE OF PRACTITIONER

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